

SUPPLEMENTAL RESPONSE UNDER 37 C.F.R. §1.116
USSN: 08/898.853

'core' layer or 'cover' layer." Further, the Board found that the claiming of core consisting of a inner sphere and an enclosure layer surrounding the inner sphere and a cover consisting of a outer layer and an inner layer would not alone structurally distinguish from the four layer/element construction of Shimosaka.

Thus, the Board specifically rejected the position that the Examiner has taken in the present application. The Board has, in fact, articulated a decision that is in complete alignment with the position taken by Applicants as submitted in the Response filed on June 10, 2002 and prior Response filed on December 21, 2001.

Furthermore, it is noted that during the interview with the Examiner in the present application on October 16, 2001, the Examiner and her supervisor stated that it was their intention to get a decision from the Board on this matter. It is respectfully submitted that the attached Decision provides the Examiners with the decision they were looking for--that is, how the Board characterizes inner layers of a golf ball.

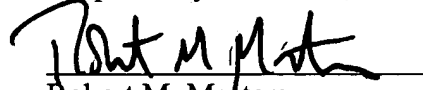
In view of this additional information, Applicants believe that claims 13-19 are sufficiently supported in the specification and the 35 U.S.C. §112 rejection of the claims 13-19 should be withdrawn. Favorable reconsideration is therefore respectfully requested.

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SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Respectfully submitted,


Robert M. Masters
Registration No. 35,603

Date: June 11, 2002

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Q45734
Paper No. 23



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

DOCKETED

JUN 03 2002

Ex parte JUNJI HAYASHI, HISASHI YAMAGISHI and HIROSHI HIGUCHI

MAILED

Appeal No. 2001-1558
Application No. 09/086,493

MAY 31 2002

ON BRIEF

PAT. & T.M. OFFICE
BOARD OF PATENT APPEAL
AND INTERFERENCES

Before ABRAMS, FRANKFORT, and NASE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

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This is a decision on appeal from the examiner's final rejection of claims 2 through 14, all of the claims remaining in this application. Claim 1 has been canceled.

Appellants' invention relates to a multi-piece solid golf ball having a four layer construction and, more particularly, to a golf ball comprising: a core (2) consisting of an inner sphere (3) and an enclosure layer (4) surrounding the inner sphere, and

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a cover (5) surrounding the enclosure layer and consisting of inner and outer layers (6 and 7, respectively). In general, appellants have discovered that a golf ball having a soft inner sphere and a relatively hard enclosure layer and a cover surrounding the enclosure layer and consisting of a relatively soft outer layer and a harder inner layer provides a ball having improved spin performance upon approach shots with a sand wedge, etc. and presents a soft hitting feel upon approach shots and putting and at the same time, travels an increased distance and gives a pleasant soft hitting feel upon full shots with a driver independent of whether the head speed is high or low. Independent claim 22 is representative of the subject matter on appeal and a copy thereof may be found in the Appendix to appellants' ratified brief (Paper No. 21).

The sole prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Shimosaka et al. (Shimosaka) 5,816,937 Oct. 6, 1998

Claims 2 through 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimosaka.

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Rather than reiterate the examiner's full statement of the above-noted rejection and the conflicting viewpoints advanced by the examiner and appellants regarding that rejection, we make reference to the final rejection (Paper No. 7, mailed February 14, 2000) and the examiner's answer (Paper No. 15, mailed December 19, 2000) for the reasoning in support of the rejection and to appellants' brief (Paper No. 14, filed October 5, 2000), reply brief (Paper No. 17, filed February 14, 2001) and ratified brief (filed August 17, 2001) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, this panel of the Board has given careful consideration to appellants' specification and claims, to the applied prior art Shimosaka reference, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have reached the determination that the examiner's rejection of claims 2 through 14 under 35 U.S.C. § 103(a) will not be sustained. Our reasoning for that determination follows.

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Shimosaka (like appellants) discloses a multi-piece solid golf ball comprising four layers or elements, i.e., a spherical core (1), an enclosure layer (3) surrounding the inner sphere, an intermediate layer (4) surrounding the enclosure layer and an outer layer (5) surrounding the intermediate layer and providing the outer surface layer of the ball. While it is true that Shimosaka describes the ball therein as comprising a core (1) and a cover of a multi-layer structure having at least three layers (3, 4, 5), we must agree with the examiner that, as a general proposition, the structure of a four layer or four element solid ball like that in Shimosaka is the same whether a layer, such as layer (3) for example, is denominated as a "core" layer or a "cover" layer. Thus, it does not appear that appellants' claiming of a core "consisting of an inner sphere and an enclosure layer surrounding the inner sphere" and a cover "consisting of an outer layer and an inner layer," would alone structurally distinguish from the four layer/element construction of Shimosaka.

However, in addition to the foregoing, appellants' claims on appeal include further limitations on the various layers or elements of the golf ball defined therein, such as, the relative

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hardness of the various layers, the gage or thickness of the layers, and the distortion of the inner sphere relative to the ball as a whole under an applied load of 100 kg. In dealing with such added limitations, the examiner has not ascertained what the specific differences are between that which is found in Shimosaka and appellants' claimed subject matter and then provided us with an explanation as to why those differences would have been obvious to one of ordinary skill in the art at the time of appellants' invention, and has not provided any clear explanation as to why the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art at the time of appellants' invention. The examiner has instead taken the position that appellants are under a burden to show that the differences in the properties in question (e.g., hardness and gage) are "critical." The examiner has concluded that since Shimosaka shows that such properties as hardness and gage have a significant influence on the feel, spin and initial velocity of a golf ball, all the variables adjusted by appellants in the claims on appeal are recognized as result-effective variables and that accordingly "it would have been an obvious matter of design choice to one skilled in the art to have adjusted the variables

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in Shimosaka in order to change the performance of the ball as desired" (final rejection, page 4).

While we see many similarities between the four element solid golf ball of Shimosaka and that claimed by appellants (i.e., a cover having an outer layer (5) with a hardness of < 55 Shore D that is within appellants' claimed range of 40 to 60 . . . Shore D, an inner cover layer (4) with a hardness of ≥ 55 Shore D within appellants' claimed range of 55 to 70 . . . Shore D, a core inner sphere (1) having a composition similar to that described in appellants' specification at pages 6-7 (note Shimosaka col. 4, line 51+), an enclosure layer (3) with a Shore D hardness of < 55 , and a distortion ratio within appellants' claimed range (see, col. 4, lines 46-50 and col. 5, lines 32-35 of Shimosaka)), we see the examiner's position as basically urging that it would have been obvious to try to manipulate the several variables involved to come up with appellants' claimed subject matter, an approach we view as inappropriate under 35 U.S.C. § 103. Further, we do not see how appellants can be expected to show that each and every one of the several variables in question is "critical," as the examiner seems to be urging as a requirement for patentability.

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In addition, we must agree with appellants' position (brief, pages 7-8 and reply brief, page 4) that the examiner has erroneously concluded that appellants' claimed range of 1.5 to 3.0 mm set forth in independent claim 5 for the thickness or gage of the outer layer "clearly falls within" (answer, page 8) the range disclosed in Shimosaka. As is clearly shown in Figure 3 of Shimosaka, the thickness of the outer layer (5) of the ball therein is to be within the range of "0.02-1.1 mm." See also column 3, lines 39-40 of Shimosaka. Thus, the examiner's factual determination supporting this aspect of the § 103 rejection before us on appeal is incorrect.¹

In light of the foregoing, we agree with appellants' conclusion that the examiner has failed to establish a *prima*

¹ Claim 13 depends from claim 5 and sets forth a gage or thickness for the outer layer of the ball as being in the range of "0.5 to 2.5 mm." This recited range is clearly outside of and inconsistent with the range of "1.5 to 3.0 mm" set forth in independent claim 5. Thus, claim 13 would appear to be indefinite. On page 9 of the specification, the range of thickness or gage of the ball outer layer is said to be "0.3 to 3.0 mm, especially 0.5 to 2.5 mm." Accordingly, it would appear that a range of "1.5 to 2.5 mm" would be consistent with the recitation in claim 5 and in appellants' specification, and was most likely intended by appellants in claim 13. In light of the disclosure on page 9 of appellants' specification concerning a preferred range of "especially 0.5 to 2.5 mm" and examples in Table 2 on page 14 having an outer ball layer thickness or gage of 1.5 mm, it would appear that the examiner's view that a range of "1.5 to 2.5 mm" was improper (see Paper No. 22) is in error.

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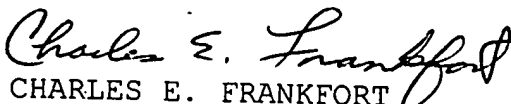
facie case of obviousness with regard to the claimed subject matter before us on appeal. Accordingly, we will not sustain the examiner's rejection of claims 2 through 14 under 35 U.S.C. § 103(a).

The decision of the examiner is reversed.

REVERSED



NEAL E. ABRAMS)
Administrative Patent Judge)



CHARLES E. FRANKFORT)
Administrative Patent Judge)



JEFFREY V. NASE)
Administrative Patent Judge)

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CEF/LBG

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Application No. 09/086,493

SUGHRUE, MION, ZINN, MACPEAK and SEAS
2100 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20037-3202